

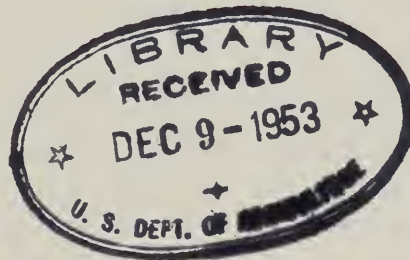
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UNITED STATES DEPARTMENT OF AGRICULTURE  
Production and Marketing Administration  
Cotton Branch

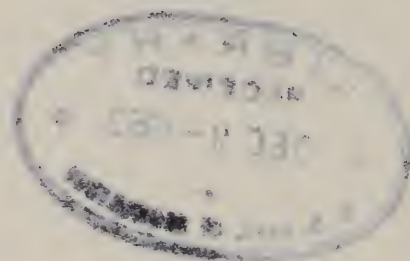
COSTS IN THE MARKETING OF COTTON FROM CENTRAL  
MARKETS TO SOUTHEASTERN MILLS



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## SUMMARY

An effort was made to determine the costs of marketing services performed by central market cotton merchants and other agencies in the movement of cotton from central spot markets to southeastern mills. Such services include assembling into even-running lots to meet varying needs of spinners, financing, storing, insuring, assuming price risks, and arranging transportation to the mill at the proper time and in the proper quantities.

These marketing services are not only value-creating processes, but, in the aggregate, they are indispensable in that they are the means of moving cotton in merchandising channels. Some marketing expenses are incurred in the primary markets, but only those costs paid by central market merchants were considered in this study.

Total costs of marketing cotton in selected central markets were determined by ascertaining the margin or spread between central market prices and the prices paid by southeastern mills. For the 1951-52 season, average marketing costs as represented by price spreads ranged from 125 points or about \$6.25 a bale at Augusta, Ga., to 284 points or \$14.20 a bale at Lubbock, Tex. Marketing costs for some of the other important markets were: Atlanta, 139 points; Memphis, 208; New Orleans, 216; Houston, 247; and Dallas, 248.

The price spread for 1951-52 was broken down to reveal the various constituent marketing services on the basis of information obtained from cotton merchants in the respective markets. Such costs included transportation, compression, concentration, financing (interest and exchange) hedging, insurance, mill brokerage, miscellaneous expense, and margin for overhead and profit.

Among the various markets in 1951-52, the principal differences in the individual items of marketing costs occurred in the cost for transportation and in the margin for overhead and profit. Transportation rates to southeastern mills ranged from 29 points per pound at Augusta to 113 points at Lubbock. Margins for overhead and profit in the markets showed a rising tendency in proceeding from east to west across the Cotton Belt, averaging 45, 50, and 65 points per pound for southeastern, south-central, and southwestern markets, respectively.

For other seasons, data were not available permitting an itemization of separate marketing costs, but an analysis was made of trends in total marketing costs in the various markets from 1945 to 1952. During this period, spreads between central market prices and mill prices for cotton generally showed a rising trend. In most markets, the peak in costs occurred in the 1950-51 season when prices were highest. For the most part, costs in the several markets maintained substantially the same general relationship to each other during the 8-year period.



Some marketing costs, such as interest, exchange, and insurance, vary directly with the price of cotton. Other costs, such as freight, compression, and storage, are not at a given time influenced by fluctuations in cotton prices. Such costs do not vary from day to day or month to month with the price of cotton but generally remain fixed for relatively long periods of time. Although freight constitutes a large part of marketing costs, it is probably more rigid than any other cost, despite the numerous rate increases during the last decade.

Although a close correlation exists between marketing costs and the price of cotton, marketing costs tended to rise more rapidly than prices during the period 1945 to 1952. A 3-year moving average of the two series of data showed that costs at markets in the southeastern and south-central areas took a slightly downward turn during the 1951-52 season. At southwestern markets, however, costs continued their upward trend during the entire period.

The ratio of marketing costs to the mill price of cotton, notwithstanding moderately rising tendency, remained fairly steady in individual markets from 1945 to 1952. From east to west across the Cotton Belt, marketing costs in the various markets increased as distance from the mill area increased, principally as a result of increased freight rates. Ratios of marketing costs to mill prices of cotton during the 8-year period ranged from about 3 percent on the average at Augusta to a little more than 7 percent at Lubbock.

In interpreting the results of price-spread computations presented in this study, certain limitations of the data should not be overlooked. The prices from which the spreads were calculated were annual average prices for the various markets as based on published quotations. They may not always be an exact average of prevailing prices at a particular time.

Available prices from which spreads were calculated included only the three principal grades--Strict Middling, Middling, and Strict Low Middling. Also of some possible significance is the fact that even-running lots of a particular growth of cotton may have different price levels in different sections of the growth area. This factor may affect significantly the price spreads for some of the markets.

# COSTS IN THE MARKETING OF COTTON FROM CENTRAL MARKETS TO SOUTHEASTERN MILLS

By Joe H. McLure and A. J. Fortenberry,  
agricultural economists, Cotton Branch,  
Production and Marketing Administration

## PURPOSE OF STUDY

In recent years a great deal of attention has been focused on the costs of producing and marketing cotton and on costs of manufacturing cotton products as a result largely of increasing competition from synthetic fibers. In the intense competitive struggle facing cotton in its efforts to hold or increase its status as the leading fiber, all costs need to be carefully scrutinized. In this study, an effort was made to determine the costs of marketing services performed by central market cotton merchants and other agencies in the movement of cotton from central spot markets to southeastern mills.

Only limited information has been published on the costs of handling cotton in central markets. Persons unacquainted with cotton-marketing operations would doubtless have only scant realization of the various marketing services provided by central market merchants or of the costs involved. Are central market services furnished generally in an efficient manner at relatively low costs or do these costs loom large in the overall costs to consumers? Specific information on the costs of marketing will be helpful in appraising the efficiency of the processes and in indicating possible opportunities for reducing costs.

Considerable information and data from which marketing costs can be ascertained are available, including published series of cotton prices at different stages of marketing. Some specific marketing cost data used in this study were obtained from central market firms in a survey made in 1952 for the purpose of appraising central markets with respect to their suitability for designation under the U. S. Cotton Futures Act 1/. Several years ago, data on the costs of marketing services in five selected central markets were collected for the 1943-44 season and included in a report published in 1948 2/. Notable work in this field has also been done at the University of Texas 3/. In this study, the measuring of marketing costs is the principal objective.

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1/ McLure, Joe H., and Fortenberry, A. J. An Appraisal of Certain Central Cotton Markets with Respect to Suitability for Designation for Price Quotations. USDA, PMA. May 1953. 98 pp.

2/ Soxman, R. C., and Roberts, Arthur L. Marketing Practices at Central Spot Cotton Markets. USDA, PMA. August 1948. 55 pp.

3/ Cox, A. B. Cotton Markets and Cotton Merchandising. Second Edition. Hemphills, Austin, Texas. 183 pp.



## NATURE AND SIGNIFICANCE OF MARKETING SERVICES

Cotton requires numerous marketing services in its movement from the farm to mill. During this journey from the scene of production to the consuming mill it may change hands several times. More than likely it will have been under the control of a central market firm at some time before it reaches its final destination. The central market merchant, or some comparable agent, performs a number of services in this chain of operations between the farm and the consumer.

The marketing services performed in central markets contribute to the efficient flow of cotton from farm to mill. Generally, it is not economically feasible for producers to provide the facilities and services necessary for getting cotton to mills at the time and in the quantities and qualities required by mills, nor is it usually feasible for mills to provide these services.

The central cotton markets furnish many of the services essential in the marketing processes of getting cotton from producers to spinners. These services include classification, assembling into even-running lots to meet varying needs of spinners, financing, storing, insuring, assuming price risks, and arranging transportation to the mill at the proper time and in the proper quantities.

These marketing services are not only value-creating processes, but, in the aggregate, they are indispensable in that they are the means of moving cotton in merchandising channels from markets to mills. This does not mean that all these services are always performed in the most economical manner, or that the costs are always equitable. Competition in the trade, however, tends to eliminate any parts of the services that are not essential, and to bring about improvements in the efficiency of handling, with the view to reducing the costs of the services. In the increasing competitive struggle with other fibers, it is clearly necessary that all costs of whatever nature be reduced as much as possible, so long as the efficiency and value of the services are not impaired.

## METHODS OF MEASURING MARKETING COSTS

If audited records from a sufficient number of cotton firms in the various markets were available, average costs of marketing cotton could very easily be prepared. Adequate records, however, are not generally available, and accurate data cannot be conveniently obtained, particularly with reference to such items as overhead and margin of profit. The costs of many items such as insurance, storage, compression, and freight can be readily obtained from a survey of the firms in a market or from other sources. The survey method, however, would not be appropriate for obtaining accurate data on overhead and profit.



Another method of measuring total costs of marketing services used in the movement of cotton from central spot markets to mills is to ascertain the margin or spread between central market prices and the prices paid by mills. This price spread reflects the total costs of marketing services, including profit margin of the cotton firm or firms whose services were utilized.

The Department of Agriculture publishes for each market day a report of the markets designated under the Cotton Futures Act in which prices for various qualities in mixed lots in warehouses in the specified market are quoted. Quotation committees from the cotton trade are responsible for making the quotations. The Department also publishes, periodically, prices for each of the principal growths of cotton for even-running lots of cotton delivered to southeastern mills.

Prices for spot cotton in central markets and prices for even-running cotton landed mills are both summarized in monthly and annual publications of the Department. By means of these two series of prices, spreads between central market prices and mill prices can be determined for the qualities for which quotations are issued.

Mill prices of cotton are quoted by the Department of Agriculture for the principal growths of cotton for Strict Middling, Middling, and Strict Low Middling grades in various staple lengths. The determination of price spreads accordingly was made only for the three grades mentioned, but these apparently are the more important grades in which even-running lots are generally shipped to mills. In the aggregate, however, other grades constitute a considerable portion of the crop. To the extent that price spreads for these other grades differ from the average spread for the three grades, the total market spread as calculated here may deviate to some extent from the true average spread.

In calculating the average spreads for each market, the price spreads for specific qualities were weighted by the estimated number of bales of the particular quality handled in the market for the season involved. These weights were based on the Department's estimates of cotton quality for the State or States constituting the market's territory together with estimates made by firms in the respective markets as to the proportion of cotton handled in the market for each of the States comprising the market's territory.

Firms in some of the markets handle cotton from beyond the immediate area of growth, but in establishing these weights, only the States within the growth area in which the market is located were considered. For instance, Memphis firms handle cotton from every cotton-growing State, but only the five major States in the south-central area--Arkansas, Mississippi, Louisiana, Tennessee, and Missouri--were used in estimating the quality of "Memphis territory" growths.

The price paid for cotton by mills includes the costs of numerous services performed by various agencies in getting the cotton from the farm to the mill. The spread between the price of cotton in central markets and the price of that cotton delivered at mills represents the costs of marketing services in getting cotton from central markets to mills.

Mill prices of cotton as used in this study are for even-running lots of cotton--that is, cotton of a specific grade and staple length of a specified area of growth. The central market price represents the price in that market of specific grades and staples of the specified area of growth, but not in even-running lots. Hence the spread includes among other services the costs of putting up cotton in even-running lots and the cost of transporting the cotton to the mill. Therefore the spread as calculated here gives the average total cost of all marketing services between central markets and consuming mills, including margin for dealer's overhead and profit. Some marketing expenses are incurred in getting cotton from producers to central markets, but only those costs applying after the cotton reaches central markets are under consideration in this study.

Details on the costs of the various marketing services in central market transactions for the 1951-52 season were obtained from cotton merchants located in selected central markets. The various items of cost are not always comparable among the merchants in a particular market. For example, one merchant may buy most of his cotton off brokerage tables in his market and thus have relatively high brokerage expense and little or no country commissions. Another may buy most of his cotton from country points with the result that country buying commissions are an important part of his operating expense. Still another firm may have salaried buyers taking up cotton at country points with the result that this firm would have no expense for country buying commissions, but would presumably have larger overhead expenses.

The charges for various marketing services were pro-rated over the entire estimated volume of cotton handled. For example, if the charge for mill brokerage was 20 points and this charge were paid on one-half of the cotton, then the costs for this service would average 10 points for the particular market. Thus the average costs of some of the services as shown here will not necessarily reflect the average charges assessed by the agencies rendering the services. On this basis, an itemization of average costs of the various marketing charges (except overhead and profit margin) was prepared.

With total costs represented by the average price spread for a specific market, average overhead and profit (combined) were obtained by merely subtracting the known itemized costs from the total spread. The remainder presumably represented average margin for overhead and profit.



In this way estimates covering a complete itemization of average costs of the various marketing services were obtained for each market under consideration. Unfortunately, the itemization of costs as obtained from dealers in the markets covered only one season, 1951-52.

## MARKETING COSTS IN CENTRAL MARKETS, SEASON 1951-52

### Total Costs as Measured by Price Spreads

The average costs of all marketing services applying to cotton (uncompressed) after it reaches central market control and including the expenses of delivery to mills may be calculated, as previously explained, as the difference in price between the average price paid by the mill for even-running lots delivered to the mill and the price of mixed lots in warehouses in the central market or the equivalent. Actually, most of the cotton handled by merchants in the central markets under consideration in this study is never stored in the central market, but is shipped from the original compress point to mill or port. The central market in this sense would include warehouse or compress points in the normal trading territory of the specified central market.

Price spreads for the markets have been determined in accordance with the procedures described. For the 1951-52 season, average marketing costs as represented by price spreads ranged from 125 points, or about \$6.25 a bale at Augusta to 284 points, or \$14.20 at Lubbock (table 1). Central market costs for some of the other important markets were: Atlanta, 139 points; Memphis, 208; New Orleans, 216; Houston, 247; and Dallas, 248 points. Data were not available for Fresno for this period but as this market is further removed from the mill area than other designated markets, the spread for Fresno was undoubtedly still higher.

### Elements of the Price Spread

The central-market-to-mill price spreads for most of the designated markets for the 1951-52 season can be broken down to reveal the costs of the various constituent marketing services, on the basis of information obtained from cotton merchants in the respective markets. The various items of expense covering marketing services performed by, or under the authority of, the central market merchant have been classified as follows: Transportation, compression, concentration, financing (interest and exchange), hedging, insurance, mill brokerage, miscellaneous expense, and margin for overhead and profit.



Table 1.--Average price per pound for even-running lots of cotton landed southeastern mills (Group B), average central market price, and average price spread for specified markets, season 1951-52 1/

Market (city)	Average price		Marketing costs (price spread)
	Landed mill	Central market	
	Cents	Cents	Points
Augusta .....	41.00	39.75	125
Charleston .....	40.95	39.63	132
Atlanta .....	41.01	39.62	139
Montgomery .....	41.08	39.20	188
Greenwood .....	42.30	40.24	206
Memphis .....	42.15	40.07	208
New Orleans .....	41.91	39.75	216
Little Rock .....	41.89	39.73	216
Galveston .....	41.02	38.60	242
Houston .....	41.02	38.55	247
Dallas .....	41.02	38.54	248
Lubbock .....	39.81	36.97	284

1/ Price data for even-running lots landed mills were available only for white grades of SM, M, and SIM, and price spreads were based on these three grades.

Freight from the central market to mill is ordinarily the largest of the several items of cost involved in merchandising cotton from central markets to consuming mills. The cost of marketing cotton to southeastern mills is to a great extent directly related to distance from market to consuming area. Although freight is not always proportionate to distance hauled, the greater distances normally carry higher rates than shorter distances. The western producing-areas have the disadvantage of higher freight rates to southeastern mills as compared with producing areas in the southeast, but the western areas have an advantage generally in lower production costs as a result largely of land better suited to mechanized production.

Freight rates on cotton originating in the southeastern area for shipment to southeastern mills are based on mileage, and separate rates are quoted for: (1) Any quantity, (2) minimum carloads of 15,000 pounds, (3) 25,000 pounds, or (4) 50,000 pounds. The compression of cotton bales permits a greater carload weight and hence a lower freight rate. In the Southeast, the cost of compression generally amounts to more than can be gained by a saving in freight. Hence, cotton can be shipped more economically uncompressed under the rate applicable for 25,000-

pound minimum carload rate which is about the average weight of a carload of uncompressed cotton. Accordingly, the rate for this weight class was used in compiling costs for southeastern markets. In computing mileage from southeastern markets, Spartanburg was used as an assumed destination inasmuch as it is about in the center of the Group B mill area.

From points west of the Alabama-Mississippi line, the economical handling of cotton requires compression of the bales to standard density for shipment to southeastern mills. Freight rates used here are those based on a carload minimum weight of 50,000 pounds, which is approximately the average weight of a car of compressed cotton. Freight rates for areas other than the southeastern area are based on a zoning plan, rather than on specific mileage as in the Southeast.

The costs of various services such as compression, concentration, storage, interest, exchange, hedging, insurance, and brokerage, were obtained from surveys made in the market. The costs of compression, storage, and other items were verified or adjusted whenever possible by reference to compress and warehouse tariffs, and averages for each of the items in each market were computed. Freight rates were compiled by traffic authorities.

The item "margin for overhead and profit" as given in accompanying tables is the residual amount in the price spread after deducting all of the other known cost items. This method of obtaining overhead and profit margin does not permit a separation of overhead from profit. Only the combined figure representing both items is ascertainable by the method used here. Although this method of estimating overhead and profit cannot be claimed to be exact, it is probably better than any other method except one based on audited profit and loss statements of firms in the various markets.

#### Costs of Constituent Marketing Services in Specific Markets

Some items of marketing costs such as interest, exchange, hedges, and insurance as well as margin for overhead and profit in most markets do not vary significantly among the markets. On the other hand, the cost of freight varies considerably among the different markets (table 2 and fig. 1). The cost of some items depends on the marketing practices followed by the individual firms. For example, if a firm makes a practice of selling its cotton immediately after purchase or soon thereafter, the charges for insurance, interest, and storage will be appreciably lower than in the reported instances of some firms that usually hold cotton for an average of 2 months pending sale and shipment.



Table 2.--Estimated costs per pound in points (hundredths of a cent) in the marketing of cotton from specified central markets to southeastern (Group B) mills, season 1951-52

Market	Major categories of marketing cost--			
	Freight	Other costs <sup>1/</sup>	Margin for overhead and profit	Total cost
	Points	Points	Points	Points
Augusta .....	29	47	49	125
Atlanta .....	39	60	40	139
Greenwood .....	91	68	47	206
Memphis .....	85	79	44	208
New Orleans .....	91	78	47	216
Little Rock .....	94	61	61	216
Houston .....	97	84	66	247
Dallas .....	105	95	48	248
Lubbock .....	113	90	81	284

<sup>1/</sup> Includes all marketing costs other than freight, overhead, and profit.

In the southeastern area, transportation rates ranged from 29 points to 71 points for the 1951-52 season for the 4 markets included (table 3). The freight costs for Augusta amounted to less than 25 percent of the marketing costs involved in merchandising cotton from Augusta to Group B mills whereas in some of the other markets, as will be seen later, freight amounted to nearly half of the costs paid by central market merchants. The resultant margin for overhead and profit was 40 points, or \$2.00 a bale, for Atlanta and 49 points, or \$2.45 a bale, for Augusta. These figures appear entirely reasonable and within the limits of what one would expect in active, normal, competitive markets, especially when considered as averages for various elements within the markets.

The principal differences in the marketing costs items for the south-central area and those previously given for the southeastern area are, first, considerably higher transportation costs for the south-central markets, and second, a moderately increased margin for overhead and profit for the south-central markets (table 4).



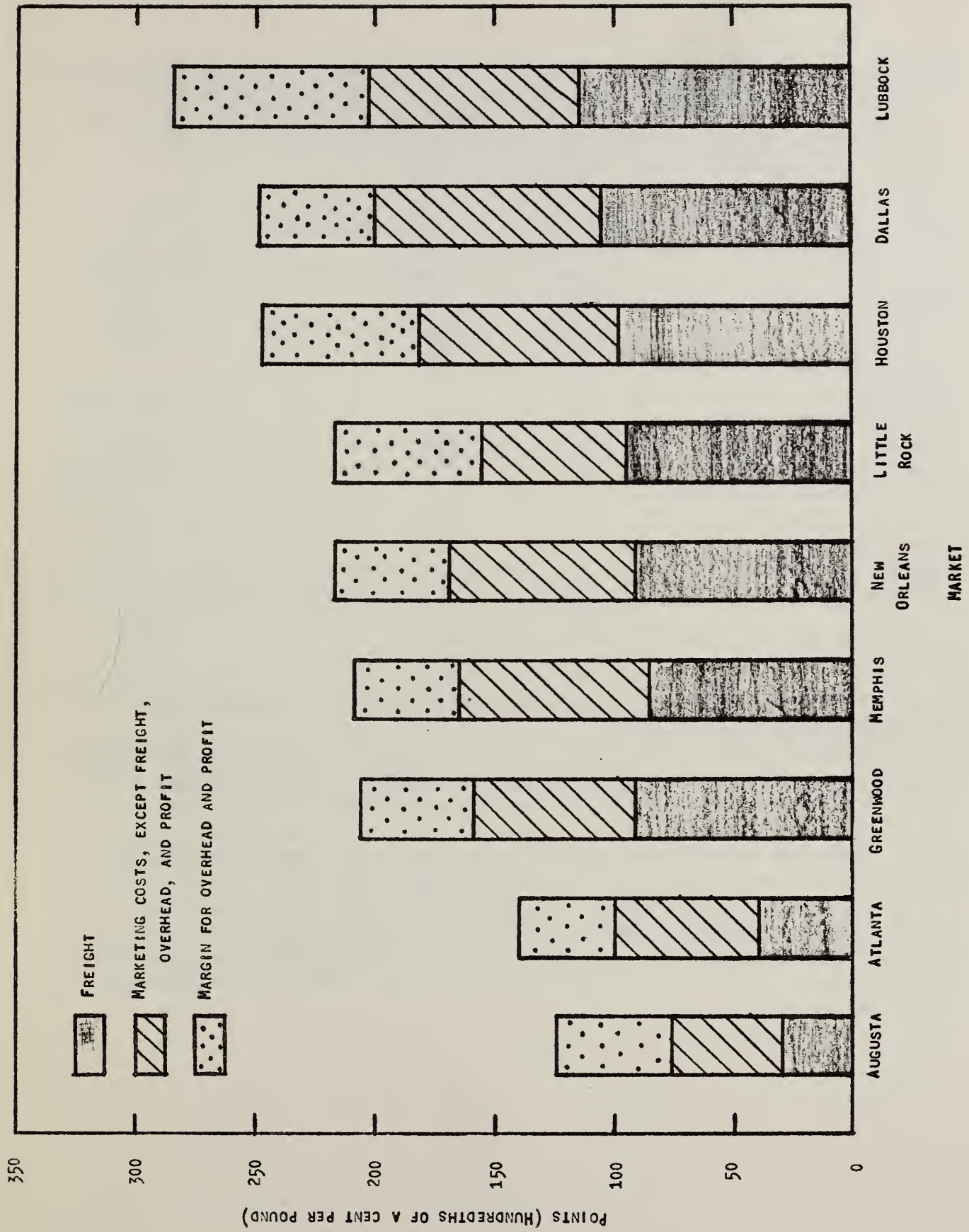


Figure 1.--Estimated costs in the marketing of cotton from specified central markets to Southeastern (Group B) mills, season 1951-52.

Table 3.--Estimated costs per pound in points (hundredths of a cent) of representative cotton merchants in selected spot markets in the southeastern area for assembling and merchandising cotton from specified markets to the Carolina Group B mill area, by items of cost, season 1951-52 1/

Item of cost	Average costs per pound for merchants at--			
	Augusta	Charleston	Atlanta	Montgomery
	Points	Points	Points	Points
Transportation <u>2/</u> .....	29	49	39	71
Compression .....	--	--	--	--
Concentration .....	16	<u>3/</u>	23	<u>4/</u>
Interest and exchange ...	9	<u>3/</u>	24	<u>4/</u>
Hedges and insurance ....	8	<u>3/</u>	7	<u>4/</u>
Mill brokerage and other :				
selling expense .....	10	<u>3/</u>	7	<u>4/</u>
Miscellaneous <u>5/</u> .....	4	<u>3/</u>	-1	<u>4/</u>
Margin for overhead and :				
profit <u>6/</u> .....	49	<u>3/</u>	40	<u>4/</u>
Total .....	125	132	139	188

1/ Costs for individual firms were weighted by corresponding volumes of shipments to Group B mills.

2/ Freight rates as reported by A. R. Palmes, a traffic authority of Atlanta, Ga. Rates apply from specified markets to Spartanburg, S. C.

3/ Not given to avoid disclosure of individual operations.

4/ Data not available.

5/ Includes rejections, weight losses or gains, and other minor items--a minus value denotes a gain in weight, the point value of which was deducted from the total of all other items of cost.

6/ Includes office rentals, salaries, communications expenses, incidentals, and shippers' margin of profit. This item was determined by subtracting from the average price spread for each market the other marketing costs.

Table 4.--Estimated costs per pound in points (hundredths of a cent) of representative cotton merchants in selected spot markets in the south-central area for assembling and merchandising cotton from specified markets to Carolina Group B mill area, by items of cost, season 1951-52 1/

Item of cost	Average costs per pound for merchants at--			
	Greenwood	Memphis	Little Rock	New Orleans
	Points	Points	Points	Points
Transportation <u>2/</u> .....	91	85	94	91
Compression .....	20	20	20	25
Concentration .....	17	20	14	18
Interest and exchange .....	15	18	16	13
Hedges and insurance .....	11	8	10	6
Mill brokerage and other :	:	:	:	:
selling expense .....	9	10	5	15
Miscellaneous <u>3/</u> .....	-4	3	-4	1
Margin for overhead and :	:	:	:	:
profit <u>4/</u> .....	47	44	61	47
Total .....	206	208	216	216

1/ Costs for individual firms were weighted by corresponding volumes of shipments to Group B mills.

2/ Freight rates as reported by A. R. Palmes, a traffic authority of Atlanta, Ga.

3/ Includes rejections, weight losses or gains, and other minor items--a minus value denotes a gain in weight the point value of which was deducted from the total of all other items of cost.

4/ Includes office rentals, salaries, communication expenses, incidentals, and shippers' margin of profit. This item was determined by subtracting from the average price spread for each market the other marketing costs.



Freight costs for Greenwood, Little Rock, Memphis, and New Orleans ranged from 85 to 94 points or about double average freight costs for Atlanta and about three times those for Augusta. In connection with freight these markets, as well as all others except those in the southeastern area, have the expense of compressing cotton which averaged slightly more than 20 points that season.

The margins for overhead and profit for south-central markets ranged from 44 points for Memphis to 61 points for Little Rock. It may be surmised that in Memphis, with the vast number of firms, competition may be keener and operations somewhat more efficient than in other markets. Merchants at Greenwood and Little Rock generally reported a gain in bale weights and this had an appreciable effect on the margin for overhead and profit. The average margin for the four south-central markets was about 50 points as compared with about 45 points for the two southeastern markets for which data were available in this study.

The costs of marketing cotton from southwestern markets--Dallas, Houston, Lubbock, and Galveston--to southeastern mills reflects higher freight charges than was found in the case of southeastern and south-central markets (table 5). Freight alone from these markets to Group B mills amounts to about \$4.85 a bale from Houston and Galveston, \$5.25 from Dallas, and \$5.65 from Lubbock. Compression charges are a few points higher in these Texas markets than in the south-central markets. Most of the other charges, such as interest, exchange, and brokerage, are not significantly different from those reported for other areas.

The margins for overhead and profit of 48, 66, and 81 points for Dallas, Houston, and Lubbock, respectively, are considerably higher than those for markets in the southeastern and south-central areas. In fact the margins show a rising tendency for the 1951-52 season in proceeding from east to west. The margins for overhead and profit, as calculated in this study, averaged about 65 points for the southwestern markets, about 50 points for the south-central markets, and 45 points for the southeastern markets. These margins cover only the part of a firm's business relating to even-running lots sold to southeastern mills. The proportion of sales made for export markets is normally an important part of the business of a great many firms, whereas in other cases, sales to domestic mills represent the main field of operation.

It should be emphasized that these results are not offered as typical margins for other years. These margins as calculated here will vary directly with the amount of the gross spread in prices and these spreads vary to a significant extent from year to year as will be shown later.

Table 5.--Estimated costs per pound in points (hundredths of a cent) of representative cotton merchants in selected spot markets in the southwestern area for assembling and merchandising cotton from specified markets to the Carolina Group B mill area, by items of cost, season 1951-52 1/

Item of cost	Average costs per pound for merchants at--			
	Galveston	Houston	Dallas	Lubbock
	Points	Points	Points	Points
Transportation <u>2/</u> .....	97	97	105	113
Compression .....	28	28	27	27
Concentration .....	<u>3/</u>	19	21	18
Interest and exchange .....	<u>3/</u>	12	10	18
Hedges and insurance .....	<u>3/</u>	8	9	7
Mill brokerage and other				
selling expense .....	<u>3/</u>	10	17	17
Miscellaneous <u>4/</u> .....	<u>3/</u>	7	11	3
Margin for overhead and				
profit <u>5/</u> .....	<u>3/</u>	66	48	81
Total .....	242	247	248	284

1/ Costs for individual firms were weighted by corresponding volumes of shipments to Group B mills.

2/ Freight rates as reported by A. R. Palmes, a traffic authority of Atlanta, Ga.

3/ Not given to avoid disclosure of individual operations.

4/ Includes rejections, weight losses or gains, and other minor items.

5/ Includes office rentals, salaries, communications expenses, incidentals, and shippers' margin of profit. This item was determined by subtracting from the average price spread for each market the other marketing costs.



In interpreting the results of the computations concerning price spreads presented in this study, certain limitations of the data should not be overlooked. The prices from which the spreads were calculated were annual average prices for the various markets. Assuming the accuracy of these annual average prices, the prices paid by individual firms might vary considerably from season average prices for the market. A quoted price is necessarily an average or an approximation of actual transactions made in the market. There is no assurance that a quoted price is always a true average of prevailing prices at a particular time.

The available prices from which price spreads were calculated included only the three principal grades--Strict Middling, Middling, and Strict Low Middling. If prices for all qualities could have been included, it is likely the results might have been somewhat different, though probably not significantly changed.

Another factor of some possible significance is that even-running lots of a particular growth may have different price levels in different parts of the growth area. For example, there may be considerable differences in the character of cotton coming from various sections of the Texas-Oklahoma growth area. Cotton of a specified quality from the High Plains section of Texas may not sell for the same price as the same quality from the Black Lands section of Texas. This factor may affect significantly the price spreads for some markets and particularly the derived margins for overhead and profit.

#### TRENDS IN MARKETING COSTS, 1945-52

Marketing costs as represented by price spreads have just been analyzed for several of the major central cotton markets for the 1951-52 season. For other seasons, data are not available permitting a breakdown of costs into separate items, but it may be of interest and value to consider other aspects of marketing costs and trends over a period of years.

#### Total Marketing Costs in Central Markets

During the period 1945 to 1952, marketing costs in central markets as measured by price spreads generally showed a rising trend (table 6 and fig. 2). In most markets, the peak in costs occurred in the 1950-51 season when prices were highest. In Lubbock and Dallas, costs continued to advance even when prices turned lower. In the other markets, costs in 1951-52 and in 1952-53 took a downward turn. For the most part, costs in the several markets maintained substantially the same general relationship to each other during this period.



Table 6.--Costs of marketing cotton between specified central markets and southeastern (Group B) mills, seasons 1945-46 to 1952-53

Market	Marketing costs for cotton seasons--							
	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53
	Points	Points	Points	Points	Points	Points	Points	Points
Augusta .....	76	91	108	79	104	143	125	103
Charleston ..	97	104	121	97	128	154	132	123
Montgomery ..	126	145	160	168	198	209	188	152
Memphis .....	141	167	171	180	208	246	208	192
Dallas .....	146	161	176	206	243	246	248	254
Lubbock .....	193	185	220	238	236	251	284	332

The relative importance of marketing costs among the central markets varies from year to year. In recent years, Lubbock has had higher costs than any other market for which data over a period of years are available. In an earlier year, costs at Dallas were higher.

Unexplained variations that occur in marketing costs from year to year among the various markets may be attributable to some extent to the fact that the cotton business is one fraught with risks, and profits are often uncertain and unpredictable. Wide fluctuations occur in profits among individual firms. The fluctuations in profits among firms in a market may occur in such a uniform way as to cause profits in a market to approach the vanishing point or on the other hand to be relatively large in certain years.

Some marketing costs such as interest, exchange, and insurance tend to vary directly with the price of cotton. A high price for cotton will require a greater amount of money in the financing of purchases, thereby increasing interest and exchange charges. The cost of insurance is likewise increased with an advance in the price of cotton.

Some of the other costs at a given time are not influenced by fluctuations in the price of cotton, such as charges for freight, compression, and storage. The charges for transportation, compression, and storage do not vary from day to day or from month to month with the price of cotton but usually remain fixed for relatively long periods of time. In periods of rising prices, the costs of items such as freight and compression tend to rise over a period of time.

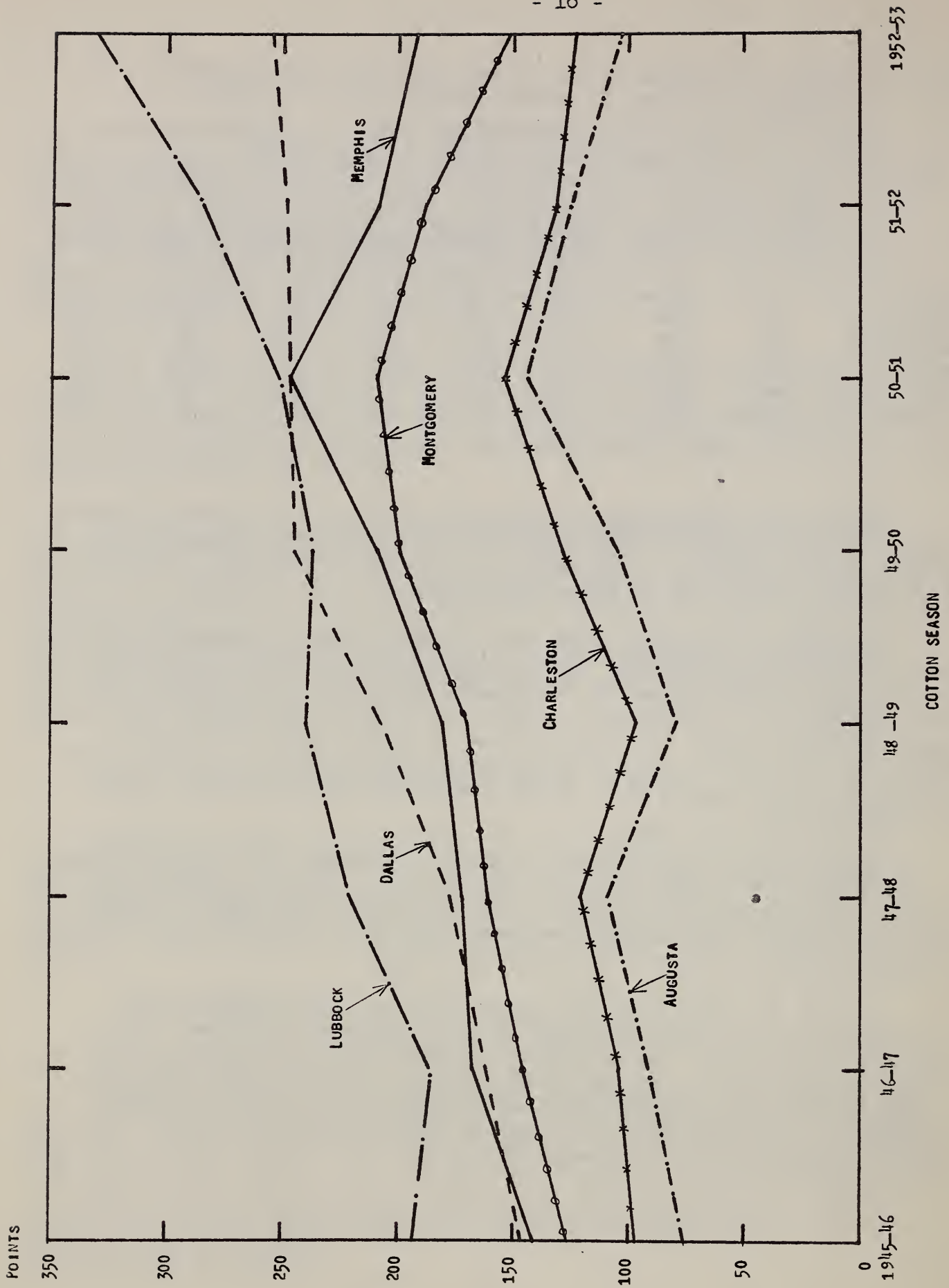


Figure 2.--Marketing costs in specified cotton markets, seasons 1945-46 to 1952-53.



The costs in marketing cotton from central markets to mills for the crops of 1945 to 1952 as based on price spreads varied to a considerable extent directly with the price of cotton (tables 7, 8, 9, and 10). In general, high prices of cotton are associated with high marketing costs. The rise in the price of cotton from about 26 cents a pound in 1945 to about 45 cents a pound in 1950 was accompanied by increased marketing costs as was evident from higher freight, storage, and compression rates. Perhaps not so evident but probably equally important were efforts on the part of shippers to increase their margin for profit. When cotton sold at 45 cents a pound, a shipper could reasonably expect a higher margin of profit than when cotton sold at 26 cents a pound.

The changes in costs (spreads) from year to year are not always consistent with changes in the price of cotton. For example, the average price of cotton was lower for the 1952-53 season in all markets than for the preceding season, yet the price spread was as great or greater for that season in all southwestern area markets than for the 1951-52 season. Freight rates on cotton were higher in all parts of the Cotton Belt, and storage and compression costs were generally higher in the southwestern and western areas in the 1952-53 season than in the preceding season. The indicated increase in marketing costs for markets in the southwestern area in 1952-53 despite a pronounced decline in the price of cotton cannot be attributed wholly to the increase in transportation charges. Some other costs, evidently overhead and profit, were also higher in the southwestern area in 1952-53.

#### Freight Costs as Related to Cotton Marketing

During the period 1945 to 1952, freight rates on cotton were increased practically every year. This increase in freight rates was generally greater than the increase in other marketing costs in the southeastern and south-central areas. In the southwestern area, however, freight was generally a smaller proportion of marketing costs during the latter part of the period 1945 to 1952 than in earlier years of this period.

For the 1952-53 season, freight rates on cotton for the markets under consideration in this report varied substantially in accordance with distance from the mill area, ranging from 31 points (hundredths of a cent) per pound for Augusta to 178 points for Fresno.

Freight costs for the 1952-53 season amounted to 50 percent or more of marketing costs at Fresno, Greenwood, Montgomery, and Little Rock; from 40 to 50 percent at Charleston, Memphis, New Orleans, Galveston, Houston, and Dallas; and from 30 to 40 percent at Augusta, Atlanta, and



Table 7.--Average prices per pound for even-running lots of cotton, southeastern growths, landed southeastern (Group B) mills, average central market prices, marketing costs or price spreads, ratios of marketing costs to mill prices, and freight rates as proportions of marketing costs at specified markets in the southeastern area, seasons 1945-46 to 1952-53

Market and season	Average prices		Ratio		Freight to Group B	
	paid by--		of		mills and freight	
	South-	Merchants	Marketing	marketing	as a proportion of	
	eastern	at	costs	cost to	marketing costs	
	mills	central	(spread)	Group B	Freight	Proportion
		market		mill	rate per	of market-
				price	cwt. 1/	ing cost
	Cents	Cents	Points	Percent	Cents	Percent
Atlanta, Ga.:						
1945-46 .....	26.63	2/	-	-	0.25	-
1946-47 .....	35.77	2/	-	-	.28	-
1947-48 .....	36.79	2/	-	-	.30	-
1948-49 .....	33.42	2/	-	-	.34	-
1949-50 .....	32.52	2/	-	-	.37	-
1950-51 .....	45.64	44.34	130	2.8	.37	28.5
1951-52 .....	41.01	39.62	139	3.4	.39	28.1
1952-53 .....	36.45	35.06	139	3.8	.42	30.2
Augusta, Ga.:						
1945-46 .....	26.53	25.77	76	2.9	.18	23.7
1946-47 .....	35.75	34.84	91	2.5	.20	22.0
1947-48 .....	36.76	35.68	108	2.9	.22	20.4
1948-49 .....	33.38	32.59	79	2.4	.25	31.6
1949-50 .....	32.30	31.26	104	3.2	.27	26.0
1950-51 .....	44.24	42.81	143	3.2	.27	18.9
1951-52 .....	41.00	39.75	125	3.0	.29	23.2
1952-53 .....	36.36	35.33	103	2.8	.31	30.1
Charleston, S. C.:						
1945-46 .....	26.51	25.54	97	3.7	.28	28.9
1946-47 .....	35.87	34.83	104	2.9	.31	29.8
1947-48 .....	36.85	35.64	121	3.3	.38	31.4
1948-49 .....	33.48	32.51	97	2.9	.42	43.3
1949-50 .....	32.12	30.84	128	4.0	.46	35.9
1950-51 .....	43.74	42.20	154	3.5	.46	29.9
1951-52 .....	40.95	39.63	132	3.2	.49	37.1
1952-53 .....	36.32	35.09	123	3.4	.54	43.9
Montgomery, Ala.:						
1945-46 .....	26.78	25.52	126	4.7	.45	35.7
1946-47 .....	35.81	34.36	145	4.0	.50	34.5
1947-48 .....	36.85	35.25	160	4.3	.55	34.4
1948-49 .....	33.47	31.79	168	5.0	.61	36.3
1949-50 .....	32.88	30.90	198	6.0	.67	33.8
1950-51 .....	44.39	42.30	209	4.7	.67	32.1
1951-52 .....	41.08	39.20	188	4.6	.71	37.8
1952-53 .....	36.58	35.06	152	4.2	.77	50.7

1/ Rates are for 25,000-pound minimum carload and are based on rates to Spartanburg, S. C. Where rates changed during year an average was used. Rates include 3 percent Federal tax.

2/ Market prices not available.



Table 8.--Average prices per pound for even-running lots of cotton, Memphis territory growths, landed southeastern (Group B) mills, average central market prices, marketing costs or price spreads, ratios of marketing costs to mill prices, and freight rates as proportions of marketing costs at specified markets in the south-central area, seasons 1945-46 to 1952-53

Market and season	Average prices paid by--		Marketing costs (spread)	Ratio of marketing cost to Group B mill price	Freight to Group B mills and freight as a proportion of marketing costs	
	South-eastern mills	Merchants at central market			Freight rate per cwt. 1/	Proportion of marketing cost
	Cents	Cents	Points	Percent	Cents	Percent
<u>Greenwood, Miss.:</u>						
1945-46 .....	28.00	2/	-	-	0.58	-
1946-47 .....	36.89	2/	-	-	.66	-
1947-48 .....	38.37	36.85	152	4.0	.72	47.4
1948-49 .....	34.75	33.10	165	4.7	.77	46.7
1949-50 .....	34.51	32.46	205	5.9	.85	41.5
1950-51 .....	45.10	42.57	253	5.6	.85	33.6
1951-52 .....	42.30	40.24	206	4.9	.91	44.2
1952-53 .....	38.06	36.16	190	5.0	.98	51.6
<u>Little Rock, Ark.:</u>						
1945-46 .....	27.22	25.85	137	5.0	.61	44.5
1946-47 .....	36.42	34.68	174	4.8	.70	40.2
1947-48 .....	37.58	35.63	195	5.2	.77	39.5
1948-49 .....	34.28	32.51	177	5.2	.81	45.8
1949-50 .....	33.68	31.28	240	7.1	.89	37.1
1950-51 .....	44.49	41.95	254	5.7	.89	35.0
1951-52 .....	41.89	39.73	216	5.2	.94	43.5
1952-53 .....	37.35	35.34	201	5.4	1.02	50.7
<u>Memphis, Tenn.:</u>						
1945-46 .....	27.65	26.24	141	5.1	.54	38.3
1946-47 .....	36.69	35.02	167	4.6	.62	37.1
1947-48 .....	37.89	36.18	171	4.5	.68	39.8
1948-49 .....	34.54	32.74	180	5.2	.73	40.6
1949-50 .....	34.13	32.05	208	6.1	.80	38.5
1950-51 .....	44.96	42.50	246	5.5	.80	32.5
1951-52 .....	42.15	40.07	208	4.9	.85	40.9
1952-53 .....	37.57	35.65	192	5.1	.93	48.4
<u>New Orleans, La.:</u>						
1945-46 .....	27.34	25.73	161	5.9	.58	36.0
1946-47 .....	36.43	34.40	203	5.6	.66	32.5
1947-48 .....	37.80	35.66	214	5.7	.72	33.6
1948-49 .....	34.47	32.37	210	6.1	.77	36.7
1949-50 .....	33.79	31.51	228	6.7	.85	37.3
1950-51 .....	44.83	42.22	261	5.8	.85	32.6
1951-52 .....	41.91	39.75	216	5.2	.91	42.1
1952-53 .....	37.57	35.56	201	5.4	.98	48.8

1/ Rates are for 50,000-pound minimum carload and apply to any destination within Group B area. Where rates changed during year an average was used. Rates include 3 percent Federal tax.

2/ Market prices not available.



Table 9.--Average prices per pound for even-running lots of cotton, Texas-Oklahoma growths, landed southeastern (Group B) mills, average central market prices, marketing costs or price spreads, ratios of marketing costs to mill prices, and freight rates as proportions of marketing costs at specified markets in the southwestern area, seasons 1945-46 to 1952-53

Market and season	Average prices paid by--		Marketing costs (spread)	Ratio of marketing cost to Group B mill price	Freight to Group B mills and freight as a proportion of marketing costs	
	South-eastern mills	Merchants at central market			Freight rate per cwt. 1/	Proportion of marketing cost
	Cents	Cents	Points	Percent	Cents	Percent
<u>Dallas, Tex.:</u>						
1945-46 .....	26.25	24.79	146	5.6	0.69	47.3
1946-47 .....	35.56	33.95	161	4.5	.79	49.1
1947-48 .....	35.26	33.50	176	5.0	.88	50.0
1948-49 .....	33.07	31.01	206	6.2	.91	44.2
1949-50 .....	32.32	29.89	243	7.5	.99	40.7
1950-51 .....	44.48	42.02	246	5.5	.99	40.2
1951-52 .....	41.02	38.54	248	6.0	1.05	42.3
1952-53 .....	35.73	33.19	254	7.1	1.13	44.5
<u>Galveston, Tex.:</u>						
1945-46 .....	26.26	24.86	140	5.3	.64	45.7
1946-47 .....	35.57	33.95	162	4.6	.73	45.1
1947-48 .....	35.26	33.57	169	4.8	.80	47.3
1948-49 .....	33.07	30.99	208	6.3	.84	40.4
1949-50 .....	32.33	30.17	216	6.7	.92	42.6
1950-51 .....	44.49	42.03	246	5.6	.92	37.4
1951-52 .....	41.02	38.60	242	5.9	.97	40.1
1952-53 .....	35.73	33.31	242	6.8	1.05	43.4
<u>Houston, Tex.:</u>						
1945-46 .....	26.26	24.84	142	5.4	.64	45.1
1946-47 .....	35.57	33.85	172	4.8	.73	42.4
1947-48 .....	35.26	33.54	172	4.9	.80	46.5
1948-49 .....	33.07	31.04	203	6.1	.84	41.4
1949-50 .....	32.33	30.19	214	6.6	.92	43.0
1950-51 .....	44.49	42.07	242	5.4	.92	38.0
1951-52 .....	41.02	38.55	247	6.0	.97	39.3
1952-53 .....	35.73	33.15	258	7.2	1.05	40.7
<u>Lubbock, Tex.:</u>						
1945-46 .....	23.58	21.65	193	8.2	.76	39.4
1946-47 .....	33.60	31.75	185	5.5	.86	46.5
1947-48 .....	33.02	30.82	220	6.7	.95	43.2
1948-49 .....	30.90	28.52	238	7.7	.98	41.2
1949-50 .....	30.10	27.74	236	7.8	1.07	45.3
1950-51 .....	42.21	39.70	251	5.9	1.07	42.6
1951-52 .....	39.81	36.97	284	7.1	1.13	39.8
1952-53 .....	34.31	30.99	332	9.7	1.24	37.3

1/ Rates are for 50,000-pound minimum carload and apply to any destination within Group B area. Where rates changed during year an average was used. Rates include 3 percent Federal tax.



Lubbock. It may appear somewhat paradoxical that Montgomery with a relatively low freight rate has a high ratio of freight costs to total market costs, and that Lubbock with a relatively high freight rate has a low ratio in this respect. Comparatively low total marketing costs for Montgomery and high marketing costs for Lubbock account for this apparent inconsistency.

Table 10.--Average prices per pound for even-running lots of cotton, California growths, landed southeastern (Group B) mills, average central market prices, marketing costs or price spreads, ratios of marketing costs to mill prices, and freight rates as proportions of marketing costs at Fresno, Calif., seasons 1945-46 to 1952-53

Market and season	Average prices :		Ratio :		Freight to Group B	
	paid by-- :		Marketing :	of :	mills and freight	
	: Merchants :		costs :	marketing :	as a proportion of	
	South- :	at :	(spread) :	cost to :	marketing costs	
	eastern :	central :	:	Group B :	Freight :	Proportion
	mills :	market :	:	mill :	rate per :	of market-
	:	:	:	price :	cwt. 1/ :	ing cost
	Cents :	Cents :	Points :	Percent :	Cents :	Percent
Fresno, Calif.:	:	:	:	:	:	:
1952-53 .....	37.27 :	34.27 :	300 :	8.0 :	1.78 :	59.3
1951-52 .....	2/ :	2/ :	- :	- :	1.64 :	-
1950-51 .....	2/ :	2/ :	- :	- :	1.54 :	-
1949-50 .....	2/ :	2/ :	- :	- :	1.54 :	-
1948-49 .....	2/ :	2/ :	- :	- :	1.42 :	-
1947-48 .....	2/ :	2/ :	- :	- :	1.31 :	-
1946-47 .....	2/ :	2/ :	- :	- :	1.31 :	-
1945-46 .....	2/ :	2/ :	- :	- :	1.21 :	-
	:	:	:	:	:	:

1/ Rates are for 50,000-pound minimum carload and apply to any destination within Group B area. Where rates changed during year an average was used. Rates include 3 percent Federal tax.

2/ Mill and market prices not available.

The ratio of freight costs to total marketing costs changes to some extent from year to year. In the southeastern and south-central areas, freight is now a larger proportion of marketing costs than in earlier years of the 1945-52 period. For example, in New Orleans, freight represented 36 percent of marketing costs in the 1945-46 season, but was about 49 percent in the 1952-53 season. All southeastern markets, as well as other south-central markets reflect similar trends.

In contrast, in the southwestern markets, freight is currently a smaller proportion of marketing costs than in some earlier years of the 8-year period. This indicated trend is observable with respect to each of the 4 Texas markets reported here, notwithstanding steadily increasing freight rates during the last several years.

The conclusion regarding these divergent trends in freight ratios is that in Texas, freight rates apparently have not increased so much as other marketing costs, and that in the southeastern and south-central markets freight rates have increased in greater proportion than other marketing costs.

Although freight constitutes a large part of marketing costs, this cost probably is less flexible than any other cost despite the numerous freight increases over the last decade (fig. 3). Freight rates are subject to approval of governmental agencies and this fact deters frequent changes or excessive increases.

#### Relative Changes in Cotton Prices and Marketing Costs

As previously mentioned, there is apparently a close correlation between marketing costs and the price of cotton but during the period 1945 to 1952 marketing costs tended to rise more rapidly than prices. This faster increase in marketing costs as compared with the increase in the price of cotton occurred notwithstanding that freight costs, one of the principal marketing costs, are traditionally rigid and slow moving. As was previously mentioned, however, freight rates on cotton were increased almost each year during the period in question.

A comparison of the relative changes in cotton prices with changes in marketing costs for the Augusta market reveals that both prices and costs advanced sharply between 1946 and 1951 (table 11 and fig. 4). A 3-year moving average of the two series of data shows that costs advanced steadily and at a faster rate than prices except that costs took a slightly downward turn in the last year shown. The price and cost curves for Augusta are typical of those for other southeastern markets.

In the Memphis market which is considered typical of south-central area markets, price and costs have the same general relationships as were shown for Augusta. In Memphis, however, the trend in costs as compared with price was decidedly more upward than at Augusta. Costs at Memphis, as at Augusta, showed indications of a downward turn by 1951. This downward turn probably occurred with respect to overhead and profit as most of the other items making up marketing costs in all markets were higher than formerly.



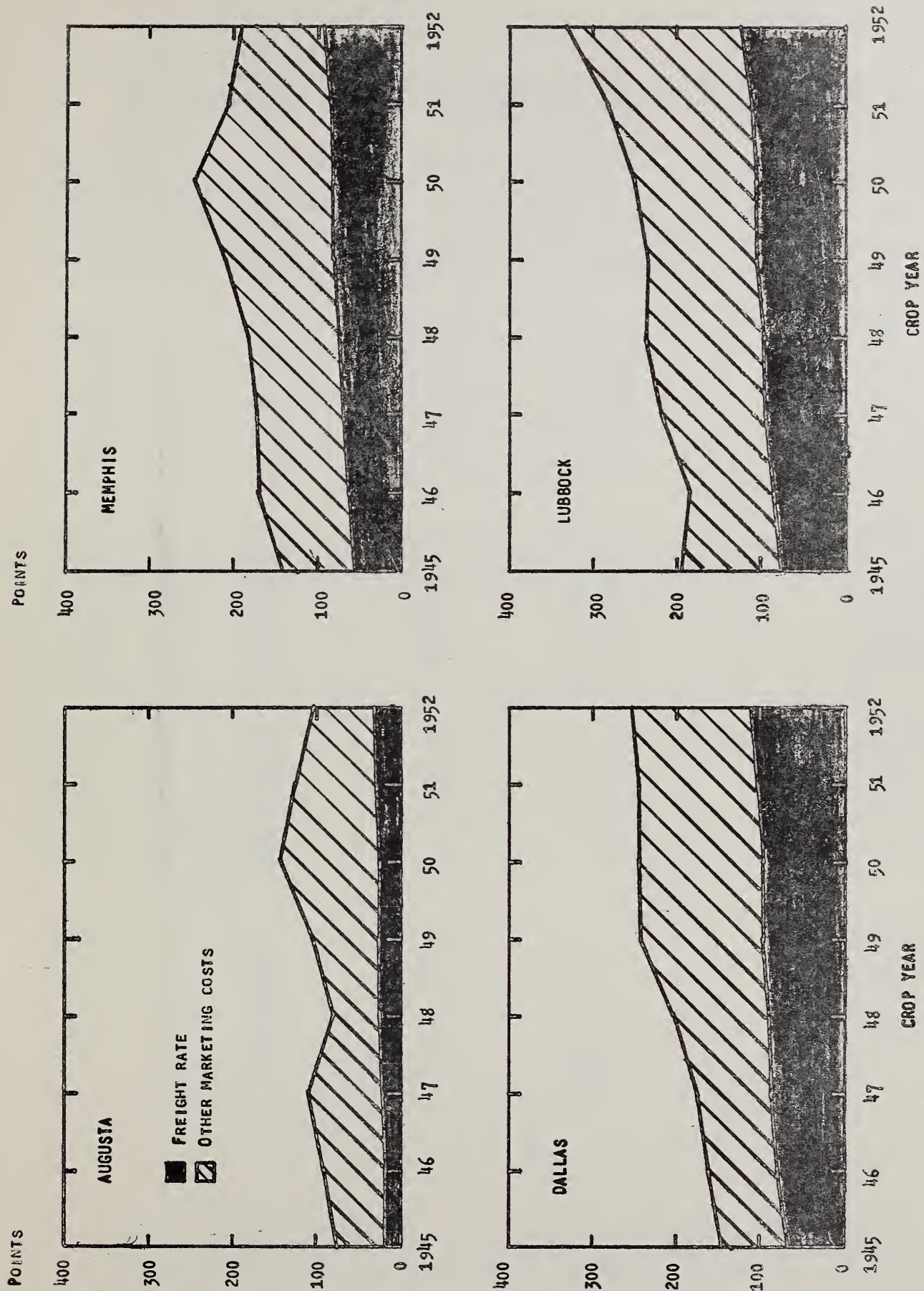


Figure 3.--Relation of freight to other marketing costs in the movement of cotton from specified central markets to Southeastern (Group B) mills, crop years 1945-52.



Table 11.--Relative changes in mill prices for cotton and in cotton marketing costs by specified central markets, crop years 1945-52

Market and years <u>1/</u>	Mill prices		Marketing Costs (spread)	
	Cents	Percent	Points	Percent
<u>Augusta, Ga.:</u>				
1945-46-47 .....	33.01	100.0	92	100.0
1946-47-48 .....	35.30	106.9	93	101.1
1947-48-49 .....	34.15	103.5	97	105.8
1948-49-50 .....	36.64	111.0	109	118.5
1949-50-51 .....	39.18	118.7	124	135.2
1950-51-52 .....	40.53	122.8	124	134.8
<u>Memphis, Tenn.:</u>				
1945-46-47 .....	34.08	100.0	160	100.0
1946-47-48 .....	36.37	106.7	173	108.1
1947-48-49 .....	35.52	104.2	186	116.7
1948-49-50 .....	37.88	111.2	211	132.3
1949-50-51 .....	40.41	118.6	221	138.2
1950-51-52 .....	41.56	121.9	215	134.4
<u>Dallas, Tex.:</u>				
1945-46-47 .....	32.36	100.0	161	100.0
1946-47-48 .....	34.63	107.0	181	112.4
1947-48-49 .....	33.55	103.7	208	129.4
1948-49-50 .....	36.62	113.2	232	143.9
1949-50-51 .....	39.27	121.4	246	152.6
1950-51-52 .....	40.41	124.8	249	154.7
<u>Lubbock, Tex.:</u>				
1945-46-47 .....	30.07	100.0	199	100.0
1946-47-48 .....	32.51	108.1	214	107.5
1947-48-49 .....	31.34	104.2	231	116.1
1948-49-50 .....	34.40	114.4	242	121.3
1949-50-51 .....	37.37	124.3	257	129.0
1950-51-52 .....	38.78	129.0	289	145.2

1/ Years begin August 1.

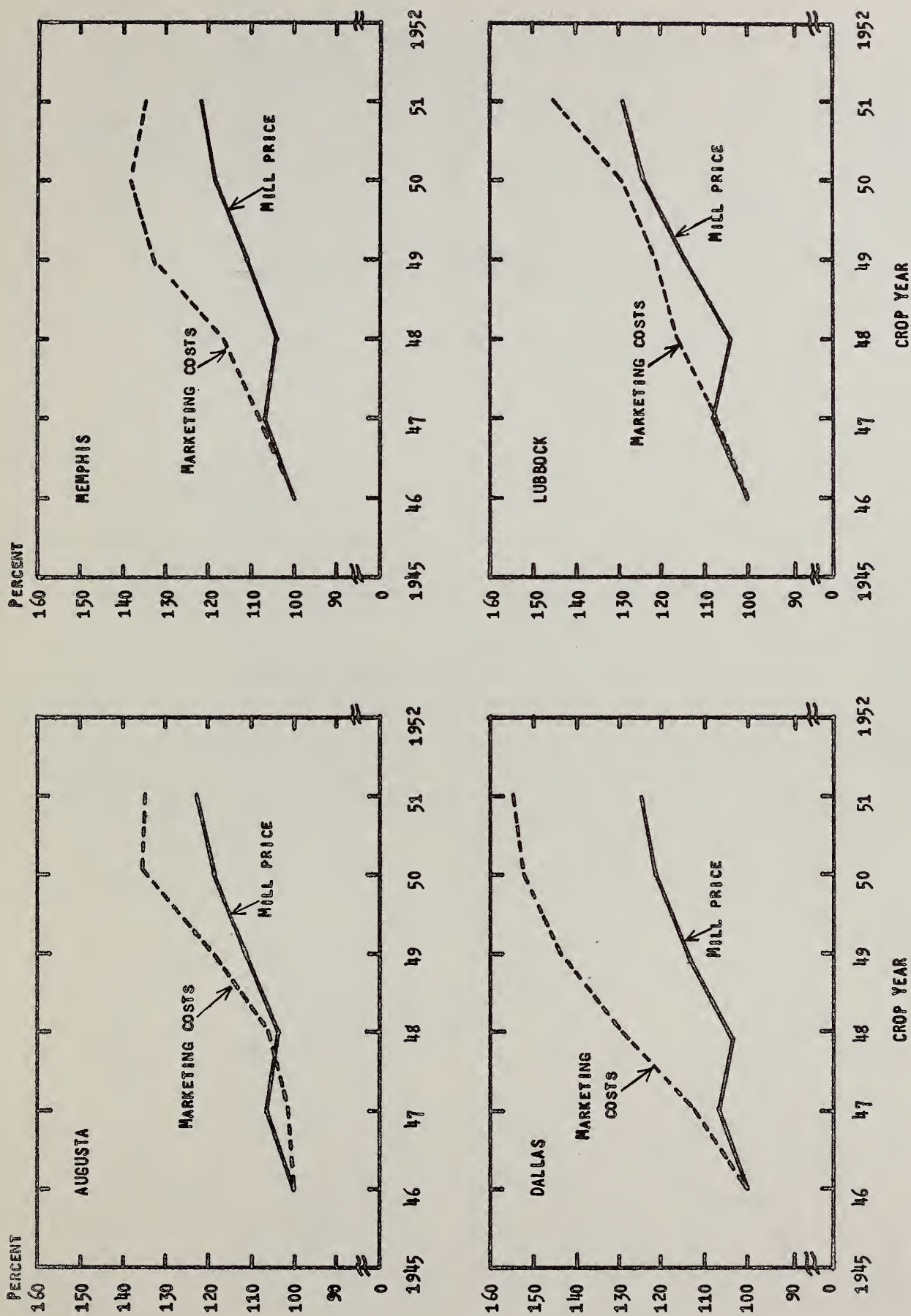


Figure 4.--Relative changes in the average price of cotton delivered Group B mills, and marketing costs at specified central markets, crop years 1945-52 (3-year moving average, 1945-47 = 100).



In the Dallas market during the period 1945-52, costs rose more sharply with relation to prices than at Augusta or Memphis. The same general relationships were found during this period for Houston, Galveston, and Lubbock. At the southwestern markets, costs continued their upward trend, as depicted by a 3-year moving average of relative costs, during the entire period without the downward turn shown for south-central and southeastern markets.

### Ratio of Marketing Costs to Price of Cotton

Despite wide fluctuations in cotton prices and wide variations in marketing costs in all the central markets under consideration in this study, the ratio of marketing costs to the mill price of cotton, notwithstanding a moderately rising tendency, has remained fairly steady in individual markets during the period 1945 to 1952.

In Augusta, marketing costs during the 8-year period, 1945 to 1952, averaged about 3 percent of price for even-running lots delivered Group B mills. As the distance from the mill area increases, marketing costs, resulting principally from freight costs, increase (table 12). At Memphis, average marketing costs amounted to about 5 percent of the average mill price, whereas at Lubbock, marketing costs averaged a little more than 7 percent of the mill price during the 8-year period.

Table 12.--Ratios of marketing costs to prices for cotton at southeastern (Group B) mills, at specified central markets 1/

Market	: Ratio of marketing costs : to mill price of cotton : Percent
Augusta .....	2.9
Atlanta .....	3.3
Charleston .....	3.4
Montgomery .....	4.7
Greenwood .....	5.0
Memphis .....	5.1
Little Rock .....	5.4
New Orleans .....	5.8
Galveston .....	5.8
Houston .....	5.8
Dallas .....	5.9
Lubbock .....	7.3
Fresno .....	8.0

1/ Data represent 8-year averages for seasons 1945-46 to 1952-53, except at Atlanta, Greenwood, and Fresno where averages represent 3, 6, and 1 years, respectively.